

administered as is necessary depending on the subject being treated, the severity of the affliction, the judgment of the prescribing physician, and the like.

5 Following this or similar procedures, those skilled in the art will be able to prepare a variety of formulations.

Furthermore, the polymers and blends of the present invention can be processed by conventional techniques to 10 form foams, which are useful as hemostatic barriers, bone substitutes, and tissue scaffolds.

In more detail, the surgical and medical uses of the filaments, films, foams and molded articles of the 15 present invention include, but are not necessarily limited to knitted products, woven or non-woven, and molded products including:

- a. burn dressings
- 20 b. hernia patches
- c. medicated dressings
- d. fascial substitutes
- e. gauze, fabric, sheet, felt or sponge for liver hemostasis
- 25 f. gauze bandages
- g. arterial graft or substitutes
- h. bandages for skin surfaces
- i. burn dressings
- j. bone substitutes
- 30 k. needles
- l. intrauterine devices

- m. draining or testing tubes or capillaries
- n. surgical instruments
- o. vascular implants or supports
- p. vertebral discs
- 5 q. extracorporeal tubing for kidney and heart-lung machines
- r. artificial skin and others
- s. stents
- t. suture anchors
- 10 u. injectable defect fillers
- v. preformed defect fillers
- w. tissue adhesives and sealants
- x. bone waxes
- y. cartilage replacements
- 15 z. hemostatic barriers
- aa. tissue scaffolds
- bb. monofilament and braided sutures
- cc. orthopedic, spinal and nuerosurgical plates, rods and pins.

20

The following non-limiting examples are illustrative of the principles and practice of this invention. Numerous additional embodiments within the scope and spirit of the invention will become apparent to those skilled in 25 the art.

Examples

30 The examples describe an opaque plating system that comprises a polymer or polymer blends that when heated

is transparent then opaque again upon cooling to body temperature.

5 In the synthetic process, the high molecular weight aliphatic polyesters are prepared by a method consisting of reacting lactone monomers via a ring opening polymerization at temperatures of 100°C to 230°C for 2 to 24 hours under an inert nitrogen atmosphere until the desired molecular weight and viscosity are achieved.

10 In the blending process, the polymer blends of the present invention are prepared by individually charging the synthesized aliphatic homo- and co-polyesters into a conventional mixing vessel. The homopolymers and copolymers 15 are mixed at a temperature of 100°C to 230°C, for 5 to 90 minutes until a uniformly dispersed polymer blend is obtained.

20 In the examples which follow, the blends, polymers and monomers were characterized for chemical composition and purity (NMR, FT-IR), thermal analysis (DSC), melt rheology (melt stability and viscosity), molecular weight (inherent viscosity), and baseline mechanical properties (Instron stress/strain).

25 Inherent viscosities (I.V., dL/g) of the blends and polymers were measured using a 50 bore Cannon-Ubbelhode dilution viscometer immersed in a thermostatically controlled water bath at 25°C utilizing chloroform or 30 HFIP (hexafluoroisopropanol) as the solvent at a concentration of 0.1 g/dL.